Jan 3. 1-8

	2					
Work Order 1D 95647 -	0	*056	1.7×			Page 1
Item ID: D4004-041 Revision ID: Item Name: Side Restraint Angle	april 1	Ассері	*N900040	100*	Setup Start	*NS1*
Start Date: 1/16/13 Start Qu Required Date: 1/30/13 Req'd Q	(y: 4.00 *4* (ty: 4.00 *4*		Cust Item ID: Customer:		3165 <sub>0</sub> V	, Market
Reference: Approvals: Process Plan: MC QC:	Date: /3-01-1	(5 Tooling: SPC (Y/N):	Date:		Run Start Stop	*NR1* *NR2*
Sequence ID/ Work Center ID  Draw Nbr  Revision Nbr		Set Up/ Run Hours	Tool ID Tool #	Plan Accept Code Qty		Reject Insp. Number Stamp
D4004 B		0.00		,		
*100* Waterjet FLOW CNC Waterjet  Dealer , class	Memo 1-Cut as per Dwg (D4004-1) Dwg Rev: 12 Prog Rev: 7	0.00		Ÿ	C	. Jpri
	2-Deburr if necessary	0.00				7
*110*	Mama	0.00		4	0	- Jen

0.00

Memo

Quality Control

NCR:	Yes /	No

DQA:	Date:	
Closed:	Date:	

										QA Closed:	Date	e:
Work Orde	r.				DISPOSITION				AGAINST I	DEPARTMENT,	/PROCESS	
Part No.				Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing  Large Fab Composite			Pro Rec/Stor	Engineering Quality Other		
Root				Descri	ption of work order update	Ini	tial	Ac	tion	Sign &		A.
Cause	Date	Step	Qty		or Non-conformance	Chie	f Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training												
Unapproved						FAULT	CATEG	OPV				
Landin	- Coor				General	AULI	CATEG	IORT				
	Bending Centre Not Concentric to O/S Bend BOM/Route Broken/Damaged Burrs Burrs		Bend BOM/Route Broken/Damaged	H	Grain  Hardware  Inspection Incomplete  Instructions Incomplete/Unclear  Maintenance			Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved	ct	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled		
Heat Treat		Countersink	N	1islabel	ed		Positioned V	Vrong	_			
	Inspection	on Strip in	Tube		Cut Too Short	N	isread		[	Power Loss/	Surge	Other
[	Ripples i	n Bend			Drill Holes		ffset					
[	Torque \	Waves in I	Extrusion	1	Drawing		ut of C	alibration		\ <u></u>		
[	Turning	Sequence			Finish			equence				
Wave/Twist in Tube Folio			0	utside	Dimensions							

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Page 2

January 16-13 8:34:24 AM

Required Date: 1/30/13

Item ID:

D4004-041

Revision ID: Item Name:

Side Restraint Angle

Start Date:

1/16/13

QC:

Start Qty: 4.00

Req'd Qty: 4.00

Accept

\*N900040100\*

Setup Start

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Date:

Tooling: SPC (Y/N):

Date: Date:

Start Run

Stop

Sequence ID/ Work Center ID

120

\*120\*

Quality Control

Operation Description

Memo

QC8- Inspect parts - second check

Run Hours

Set Up/

0.00

()\_()()

0.00

Tool ID

Tool # Plan Code

Accept Oty

Reject Reject Otv

Insp. Number

Stamp

130

\*130\*

Brake NC

Brake NC

Memo

Memo

140

\*140\* OC.

Quality Control

Bend as per dwg

1- Bend D4004-1 as per Dwg

2- C'sink as per dwg

QC5- Inspect part completeness to step on W/O

0.00 12.2.13

NCR:	Yes /	No

DQA:	Date:	

										9	QA Closed:	Da	ite:	
Work Orde	er:			DISPOSITION			Skid-tube	AGAIN: Crosstul	_	PARTMENT	/PROCESS  Water Jet		Engineering	
Part N	lo				Scrap	1	N	Machining	Small Fa	ab		d. Eng. Coor.		Quality
NCR N	lo				Use-as-is Work Order Update	]   T	Thermoforming Finishin  Large Fab Composite				Rec/Stor	re/Packaging Supplier	-	Other
Root				Descri	ption of work order update	Initi	ial	Ac	tion		Sign &			
Cause	Date	Step	Qty	(	or Non-conformance	Chief	Eng	Desc	ription		Date	Verificatio	n	QC Inspector
Doc/Data														
Equip/Tooling														
Operator														
Material														
Setup														
Other														
Process														
Supplier													- 1	
Training														
Unapproved											4		ii )	
					F	AULT C	ATEG	ORY						
Landir	ng Gear			179	General	_								
	Bending				Bend	Gr	ain				Ovalized		P	Pressure/Forced
	Centre No	ot Concer	ntric to O	/S	BOM/Route	На	rdwar	e			Over/Under	tolerance	П	Temperature/Cure
	Cracks Broken/Damaged		Ins	pectio	on Incomplete			Part Incorrec	ct	V	Weld			
	Crushed/	Crushed/Crimped Burrs		Ins	truction	ons Incomplete/I	Unclear		Part Lost/Mi	ssing	\	Wrong Stock Pulled		
	Cuffs				Contamination	Ma	ainter	nance			Part Moved			
	Heat Trea	at Treat Countersink		Mi	slabel	ed			Positioned V	Vrong				
	Inspectio	n Strip in	Tube		Cut Too Short	Mi	sread				Power Loss/	Surge		Other
	Ripples in	Bend			Drill Holes	Off	fset							14
	Torque W	Vaves in E	xtrusion		Drawing	Ou	t of Ca	alibration						
	Turning S	equence			Finish	Ou	t of Se	equence						
			Ou	Outside Dimensions										

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## Work Order II) 95647

January 16 13 8:34:24 IAI

\*95647\*

Page

Item ID:

D4004-041

1/16/13

Accept

\*N900040100\*

Setup Start

Item Name: Start Date:

Revision ID:

Required Date: 1/30/13

Side Restraint Angle

Cust Item ID: Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Start

QC:

Date:

SPC (Y/N):

Date:

Qty

Run

Sequence ID/ Work Center ID

Operation Description

Start Qty: 4.00

Req'd Qty: 4.00

Chemical Conversion Coat per QSI005 4.1

Set Up/ Run Hours

Tool ID

Tool# Plan Code

Reject Accept Oty

Reject

Insp. Number Stamp

\*150\*

150

HandFinish Hand Finishing

Memo

0.00

0.00

155

\*155\*

Quality Control

QC7-Inspect Chemical Conversion Coat

0.00

0.00

1 4 13-3-1

160

\*160\* Powdercoat

Powder Coating

Gloss Grey (4.3:5.15) per QSI 005 4.3

Memo

Start Time: Di X Oven Temperature:

Finish Time: 2 (2)

0.00

4 6 8613 31

0.00

NCR:	Yes /	No

DQA:	Date:	

NCK. TE	25 / 140				WORK ORDER NON-	CON	rokii	MANCE / OF	DATE	(	QA Closed:	Da	ate:	
Work Order	r:				DISPOSITION				AGAINS	GAINST DEPARTMENT/PROCESS				
Part No					Rework Scrap	H I			Crosstub Small Fal				Engineering Quality	
NCR No	o				Use-as-is Work Order Update				re/Packaging Supplie	$\rightarrow$	Other			
Root				Descri	otion of work order update	Ini	itial	Ac	tion		Sign &			
Cause	Date	Step	Qty	(	or Non-conformance	Chie	f Eng	Desc	ription		Date	Verification	on	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Fraining														
Jnapproved					F	AULT	CATE	GORY					4	
Landing	g Gear				General									
	Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspection Ripples in Torque W Turning S	Crimped ot n Strip in Bend Vaves in E	xtrusion	s	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish	H Ir	nstructi Mainte Mislabel Misread Offset Out of C	on Incomplete ons Incomplete/ nance led	Unclear	F	Ovalized Over/Under Part Incorrect Part Lost/Mi Part Moved Positioned W Power Loss/S	ct ssing Vrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
-	Wave/Tw			-	Folio			Dimensions					_	

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Jonnary-16-13		AR 1-5 1		*OF	347*			p	) 186 4
Item ID: Revision ID: Item Name:	D4004-041 Side Restrain	t Angle		Accept	*N.900040	1100*	Setup Start	101021	*
	1/16/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item ID: Customer:		Stop	*NS2	*
Approvals:  Sequence ID/ Work Center ID  170  *170* QC Quality Control	Process Pla QC:	Operation Description QC3- Inspect Part Finish Memo	Date: Date:	Tooling: SPC (Y/N): Set Up/ Run Hours 0.00	Date: Date: Tool ID Tool #	Plan Accep Code Qty	The state of the s	"INK I	
*180* Small Fab Small Fab  190 *190* QC Quality Control		Memo Assemble as p  QC5- Inspect part complete  Memo		0.00 0.00 0.00 0.00	01	j		13-0	>5

NCR:	Yes /	No

DQA:	Date:	

									QA Closed:	Date	:
Work Orde				DISPOSITION			tube	AGAINST D  Crosstube  Small Fab	EPARTMENT,	Water Jet	Engineering Quality
Part N				 Scrap Use-as-is Work Order Update	Т	Mach hermofor Large		Finishing Composite	_	d. Eng. Coor. re/Packaging Supplier	Other
Root				ption of work order update	Initi			ction	Sign &	50500 1578e 590	- I
Cause	Date	Step	Qty	or Non-conformance	Chief	Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved											
				F	AULT C	ATEGORY	vi				
Landi	Bending Centre N Cracks Crushed/ Cuffs Heat Treat Inspection Ripples in Torque V Turning S	Crimped at in Strip in in Bend Vaves in I	Tube	General  Bend  BOM/Route  Broken/Damaged  Burrs  Contamination  Countersink  Cut Too Short  Drill Holes  Drawing  Finish	Ins Ins Ins Ins Off Ou	rdware pection Inc	ncomplete, e ation	/Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	Waye/Ty	vist in Tub	20	Folio	lou	tside Dime	nsions				

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January-16-13 8:34:24.4M

Required Date: 1/30/13

Item ID: Revision ID: D4004-041

Side Restraint Angle

Accept

\*N900040100\*

Setup Start

Item Name: Start Date:

1/16/13

Start Qty: 4.00 Req'd Qty: 4.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID

200

Operation Description

Identify as per dwg & Stock Location:

Set Up/ Run Hours

0.00

Tool ID

Tool# Plan Code

Accept Qty

Reject Qty

Reject

Insp. Number Stamp

\*200\*

Packaging Packaging

Memo

0.00

210

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

().()()

W 13.58-02

NCD.	Voc /	Nio
NCR:	Yes /	No

DQA:	Date:	

iven.	23 / 110								a l	QA Closed:	Date	
Work Orde Part N					DISPOSITION  Rework  Scrap  Use-as-is	}	Skid- Mach nermofor	tube Crosstu	ibe		Water Jet d. Eng. Coor. e/Packaging	Engineering Quality Other
NCR N	0				Work Order Update	ַן וַ וֹ		e Fab Compos			Supplier	1 [
Root Cause	Date	Step	Qty		ption of work order update or Non-conformance	Initia Chief I		Action Description		Sign & Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved												
опаррточеа					F	FAULT CA	ATEGORY	1				
Landin	Bending Centre N	ot Conce	ntric to O	/s	General Bend BOM/Route	Gra				Ovalized Over/Under	tolerance	Pressure/Forced Temperature/Cure
	Cracks Crushed/ Cuffs Heat Tre- Inspectio	'Crimped at on Strip in			Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes	Inst Inst Ma Mis	pection In- tructions I aintenance slabeled sread	ncomplete/Unclear		Part Incorrect Part Lost/Mit Part Moved Positioned W Power Loss/S	ssing /rong	Weld Wrong Stock Pulled Other
l	1000		Extrusion		Drawing	-	t of Calibra	ation				

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish

Folio

### Picklist Print

January 16-13 8:34:28 AM

Work Order ID: 95647

Comments:

Parent Item: 1)4004-041

Parent Item Name: Side Restraint Angle

\*95647\* \*D4004-041\*

Start Date: 1/16/13

Required Date: 1/30/13

Required Qty: 4.00

Start Qty: 4.00

IPP rev A 09.12.15 new issue Prelim EC verified by:DD 10.05.17 as per ECN10-562 DD verf:

Manufactured

No

IPP Rev:C 12.03.07 as

	oci dwg fev, n DD				12,03,	oz as						
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total	Qty	Date
M2024T3S.063		Purchased	No			VI 20		Trand		Qty	Issued	Issued
*M2024T3	\$ 063*					100	sf	212,7400	0.22	0.926316		
2024-13 .063 sheet									**	2320310		
				1						1		
				Location		Luc Q	<u>Oty</u>	Loc Code				
				MAT022		212	74					
					110019		0.2		-			
					121197		.34					

		Location MAT022	Loc Qty 212.74	Loc Code	
		119916 121197 123096	0.2 21.34		
D4004-3 *D4004-3* Strut Lock Bracket	Manufactured	123654 123701 No	11.4 12.8 167 180 Lach	3.0000	123761

<b>Location</b>	1.0	oe Qty	Loc Code	
GA 80021		3	B 95845	1
	180	Each	40.0000	4

1.ocation Loc Qty Loc Code (iA 40 79992 85482 39

Sb13605601

\*D4004-7\*

D4004-7

Jm13-2 2

Status

No

DQA:	Date:	

	670										QA Closed:	Da	te:	
Work Order:					DISPOSITION				AGAINS'	T DEF	PARTMENT	/PROCESS		
Part No					Rework Scrap	7		Skid-tube Machining	Crosstube Small Fal		Pro	Water Jet d. Eng. Coor.		Engineering Quality
NCR No					Use-as-is Work Order Update	]	Therm	noforming Large Fab	Finishin Composite	g		re/Packaging Supplier	-	Other
Root				Descri	ption of work order update	In	itial	Ac	tion		Sign &			
Cause	Date	Step	Qty	(	or Non-conformance	Chi	ef Eng	Desc	ription		Date	Verificatio	n	QC inspector
poc/Data quip/Tooling perator Material etup other rocess upplier raining		9												
	*	•			F	AULT	CATE	GORY						
Landing	Gear			76	General									
	Cracks	Centre Not Concentric to O/S		Bend BOM/Route Broken/Damaged		Grain Hardware Inspection Incomplete		Over/Under tolerance Part Incorrect				Pressure/Forced Femperature/Cure Weld		
-	Crushed/Crimped Burrs Cuffs Contamination		$\vdash$	nstruct Mainte	ions Incomplete/ nance	'Unclear	$\vdash$	Part Lost/Missing Wrong Stock Pulled Part Moved			Wrong Stock Pulled			
	Heat Trea		T. Ik		Countersink	$\vdash$	Mislabe			$\vdash$	Positioned V		$\Box$	Other
-	Inspectio Ripples in		Tube		Cut Too Short Drill Holes	$\vdash$	Misread Offset	1			Power Loss/	surge	П	Julei
	Torque W		Extrusion	1	Drawing	П	Out of 0	Calibration		11 5				

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish Folio Work Order ID: 95647

Parent Item: 104004-041

Parent Item Name: Side Restraint Angle

\*95647\* \*D4004-041\*

MS20426AD4-1

MS20426AD4-5

Purchased

180 Lach

Start Qty: 4.00

Start Date: 1/16/13

Required Date: 1/30/13 Required Qty: 4.00

FF 13-05-01

Purchased

No

GA 121090

Location

180

806 Each

806

Loc Qty

Loc Qty

48 48 2,700,000

Loc Code

806,0000

\*\*

\*MS20426AD4-5\*

Location GA ST317

6874

2652 2652 Loc Code

	PRO10 05	0.65550
NCR:	Yes /	No

DQA:	Date:	
QA Closed:	Date:	
EPARTMENT,	/PROCESS	
_	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Sign &	Varification	OC Inspector

				DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No				Rework Scrap Use-as-is		Machining Small Fa Thermoforming Finishir			ab Prod. Eng. Coor. Quing Rec/Store/Packaging C			Engineering Quality Other
				work Order opdate	J		Large Fab	Composi	te		3upplier_	
Date	Step	Qty	-		10070					Sign & Date	Verification	QC Inspector
					AUL	T CATE	GORY					- 95
Bending Centre No Cracks Crushed/o Cuffs Heat Trea Inspection Ripples in Torque W	Crimped  It In Strip in I Bend Vaves in E	Tube	/s	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish	-	Inspecti Instruct Mainte Mislabe Misread Offset Out of C	on Incomplete ions Incomplete/ nance led  Calibration equence	Unclear		Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V	ct sissing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	Date  Date  Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspection Ripples in Torque W Turning S	Date Step  Date Step  Date Step  Date Step	Date Step Qty  Date Step Qty  Date Step Oty  Date S	Date Step Qty Contact	Rework Scrap Use-as-is Work Order Update  Date Step Oty Description of work order update or Non-conformance  Fear General  Bending Bend BOM/Route  Broken/Damaged  Broken/Damaged  Burrs  Cracks Broken/Damaged  Burrs  Countersink  Countersink  Inspection Strip in Tube  Ripples in Bend Cut Too Short  Drill Holes  Torque Waves in Extrusion  Turning Sequence Finish	Rework Scrap Use-as-is Work Order Update  Date Step Oty  Description of work order update or Non-conformance  Ch  Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence  Description of work order update or Non-conformance  Ch  Bend Bend Bend Bend BoM/Route Broken/Damaged Contamination Countersink Cut Too Short Drill Holes Drawing Turning Sequence  Finish	Rework Scrap Use-as-is Work Order Update Unitial Chief Eng    Date   Step   Qty   Or Non-conformance   Chief Eng	Rework Scrap Use-as-is Work Order Update Initial Chief Eng Description of work order update or Non-conformance Chief Eng Description of Work Order Update Initial Chief Eng Description of Work Order Update Or Non-conformance Chief Eng Description of Work order update or Non-conformance Chief Eng Description Or Non-conformance Chief Eng Description Or Non-conformance Initial Chief Eng Description Or Initial Chief Eng Description Initial Chief Eng De	Rework   Scrap   Work Order Update   Skid-tube   Small F   Small F	Rework Scrap Use-as-is Work Order Update Use-as-is Use-as-is Work Order Update Use-as-is Use-as-	Rework Scrap Use-as-is Work Order Update Use-as-is Use-as-is Work Order Update Use-as-is Use-a	Rework Scrap Use-as-is Work Order Update Date Step Qty Description of work order update or Non-conformance Step Qty Or Non-conformance Chief Eng Description Date Step Qty Description of work order update or Non-conformance Chief Eng Description Date Verification Date Step Qty Description of work order update or Non-conformance Chief Eng Description Date Verification Date Date Date Date Date Date Date Date

DART AEROSPACE LTD	Work Order:	95647
Description: Side Restraint	Part Number:	D4004-1
inspection Dwg: D4004 Rev: A	The state of the s	D4004-1
Mov. p		Page 1 of 1

# FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	
Ø0.098	+0.004/-0.001	0.098	-			THE PARTY OF THE P
Ø0.129	+0.005/-0.001	0.128"	-		V	Jirma.
3.65	+/-0.030	3.650	-		V	
0.223	+/-0.010	0.223			V	A SAGE
10.63	+/-0.030	10.631	-		V	
2.99	+/-0.030	3 600	_		V	Prouze
5.79	+/-0.030	5,74.3"	-		·V	2
0.87	+/-0.030	N 868°	-	100	V	=,
2.40	+/-0.030	2.397"			V	
1.38	+/-0.030		~		レ	
0.50	+/-0.030	1.36."	~		U U	
0.79	+/-0.030	0.499"	-		V	
0.38	+/-0.030	0.379	_		ν'	
0.98	+/-0.030		_		V	
1.18	+/-0.030		_		-6'	110
1.56	+/-0.030	1.55%			V	
0.063	+/-0.010		_		V	
-		0000			V	
	7					
					2 43	, y
	1					A S
	A					
			- 1		Land B	In the

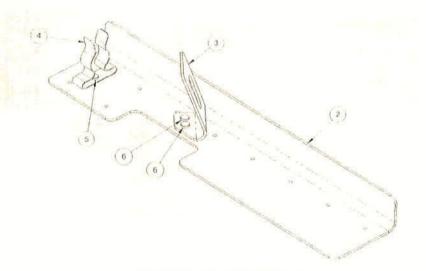
Date: 13-2-8 Date: 13-2-8		
Ray Date Change	Date:	N/A
A 10.08.03 New Issue P/O D4004-041	Revised by	Approved

		92	
NCR:	Yes	1	No
I W CIT.	163	,	140

DQA:	Date:	

NCN.	23 / 110				WORK ONDER WORK		WARRELY OF	DATE	QA Closed:	Date	2:
Work Order						1		_	EPARTMENT,	_	T sadamata.□
Part No	o				Rework Scrap	]   1	Skid-tube Machining	Crosstube Small Fab	-	Water Jet d. Eng. Coor.	Engineering Quality Other
NCR No	o				Use-as-is Work Order Update	-	noforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root				Descri	ption of work order update	Initial	Ac	ction	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Chief Eng	Desc	cription	Date	Verification	QC Inspector
Ooc/Data equip/Tooling Operator Material Setup Other Process Supplier Fraining Unapproved											
					F	AULT CATE	GORY				
Landin	Bending	Crimped at n Strip in i Bend Vaves in E	Extrusion	S	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish	Instruct Mainte Mislabe Misread Offset Out of C	on Incomplete ions Incomplete, enance eled	/Unclear	Ovalized Over/Under Part Incorre Part Lost/Mi Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled  Other
	Wave/Tw				Folio	Outside	Dimensions				

ITEM NO.	-041	PART NUMBER	DESCRIPTION	IDUITA CAMPINAL AND
. 1	×	D4004-041	SIDE RESTRAINT ANGLE	JOHN CAMERON AVIATION PART NUMBER
			ANGLE THOMAS ANGLE	JCA-M47-2-19
2		D-100-1 1	SIDE RESTRAINT	
754	1	DH004 3	ANGLE	
4	-1	D4004-7	HOSE CLIP	
5	1	MS20426AD4-4	RIVET	
6	2	MS20426AD4-5	RIVET	



95647 MCT 13-01-16

D4004-041 SIDE RESTRAINT ANGLE

NOTES:
1) MATERIAL: N/A
2) FINISH: POWDER COAT "ANSI 61 GREY" (4.3,5,15) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
7) WEIGHT: 0.21 lbs

CHANGE POWDER COAT FROM "GREY SANDTEX" TO "ANSI 61 GREY", ZN A5-1, ZN A5-2. 12.02.27 NEW ISSUE 10 02 10 REV. DESCRIPTION DATE DESIGN DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWN CHECKED DRAWING NO. REV. B MFG. APPR. D4004 SHEET 1 OF 11 APPROVED TITLE SCALE DE APPR. SIDE RESTRAINT COPYRIGHT O 2010 BY DART AEROSPACE LTD 12.02.27

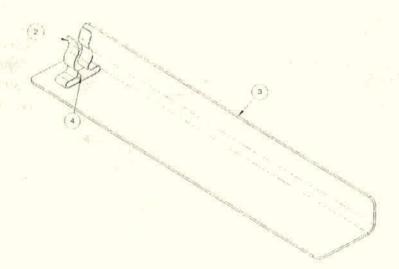
NCR:	Yes	No
IVC.R.	162	140

DQA:	Date:	

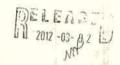
iven.	23 / 110				WORK ONDER NOW	001111		inition y or or		QA Closed:	Date	
Work Orde	er:				DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
					Rework	1		Skid-tube	Crosstube		Water Jet	Engineering
Part N	lo.				Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is	Th	nerm	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR N	lo				Work Order Update	]		Large Fab	Composite		Supplier	
Root				Descri	ption of work order update	Initia	al	Actio	on	Sign &		
Cause	Date	Step	Qty	- (	or Non-conformance	Chief	Eng	Descrip	otion	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup										1		
Other												
Process						1				1		
Supplier		la l										
Training												
Unapproved												
						AULT C	ATEC	ORY				
Landir	ng Gear				General				_	_		7
	Bending				Bend	Gra				Ovalized		Pressure/Forced
	Centre N	ot Conce	ntric to C	D/S	BOM/Route	$\vdash$	dwa			Over/Under	_	Temperature/Cure
	Cracks			_	Broken/Damaged			on Incomplete		Part Incorre		Weld
ļ	Crushed/	Crimped		_	Burrs			ions Incomplete/Un	nclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination	$\overline{}$		nance	_	Part Moved		
	Heat Trea	et			Countersink		labe		_	Positioned V		7
	Inspectio		Tube		Cut Too Short		read	10	L	Power Loss/	Surge	Other
	Ripples in				Drill Holes	Off						
	Torque V			1	Drawing			Calibration				
	Turning S	equence			Finish			equence				
	Wave/Twist in Tube				Folio	Out	Outside Dimensions					

FFEM NO.	-0.63	PAR'I NUMBER	DESCRIPTION		Wall roll
1	Х	D4004-043	SIDE RESTRAINT ANGLE AND 10 DOWN POIN	, E	PART NUMBER
2.	in Trans	D4004.7	HOSE CLIP		JCA-M47-2-04
4	100	MS20426AD4	ANGLE	27	





# D4004-043 SIDE RESTRAINT ANGLE AND TIE DOWN POINT



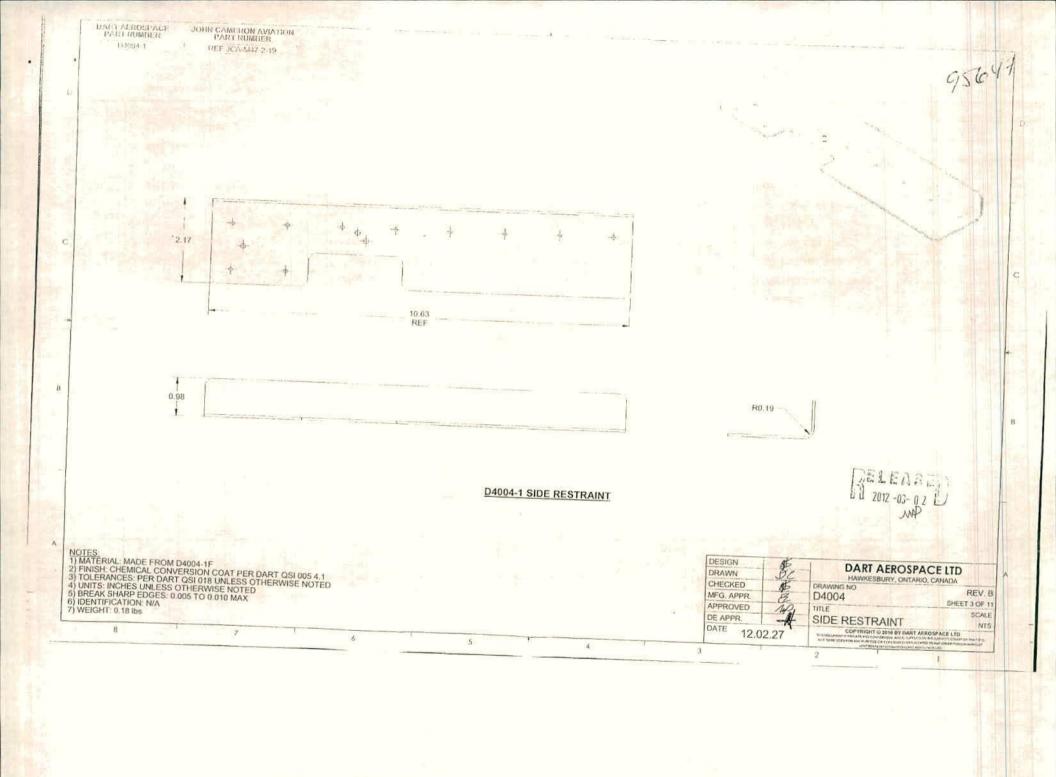
NOTES:
1) MATERIAL N/A
2) FINISH: POWDER COAT "ANSI 81 GREY" (4.3.5.15) PER DART QSI 005 4.3 /B)
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
7) WEIGHT: 0.20 lbs

DESIGN	25	DART AFROSEN							
DRAWN	DC	HAWKEEDLIEN OUTLON	DART AEROSPACE LTD HAWKESBURY, ONTARIO, GANADA						
CHECKED	1	DRAWING NO.							
MFG. APPR.	13.	D4004	REV. B						
APPROVED	10	TITLE	SHEET 2 OF 11						
DE APPR		SIDE RESTRAINT	SCALE						
DATE 12.0	2.27	CONVENIENT DESIGN BY DART AEROSPACE LTD							
		MINTENNESS CONTRACTOR AND PROPERTY OF CONTRACTOR CONTRA	Till thir orbics extraordionnion						

NCR:	Yes /	No
IACU.	162 /	140

DQA:	Date:	

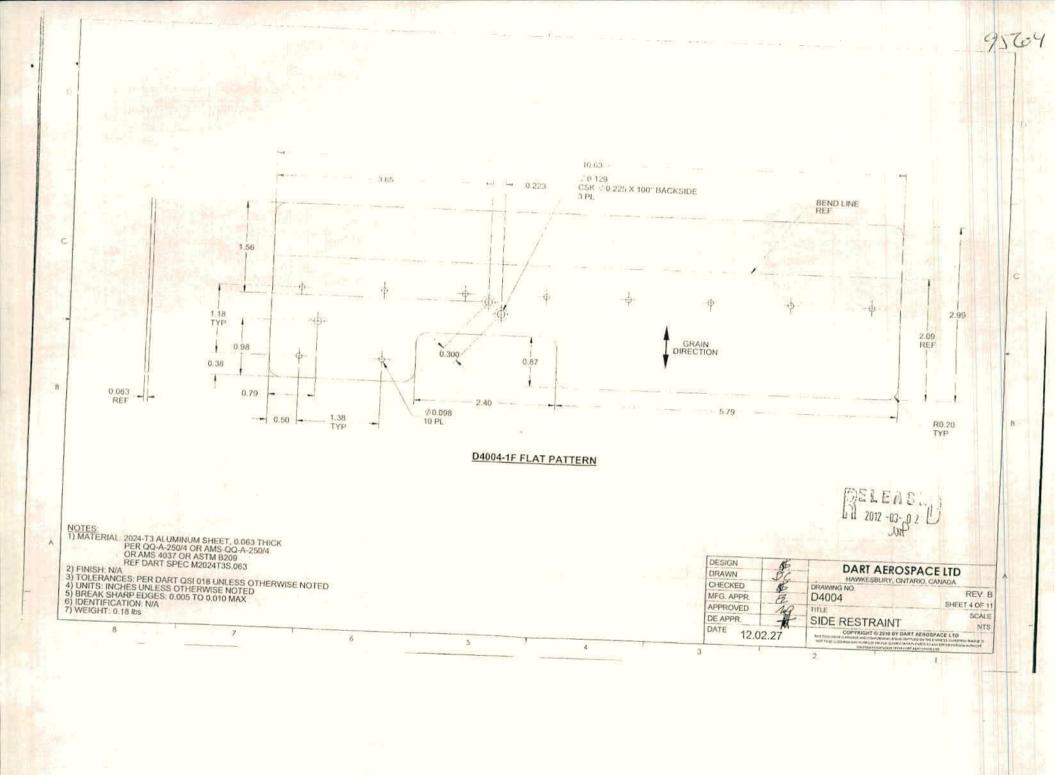
NCK. 1	es / No				WORK ORDER NON-	CONT	, i tivi	IAIVEL / OF D	AIL	- 3	QA Closed:	Dat	e:		
Work Orde	r:				DISPOSITION		AGAINST DEPARTMENT/PROCESS								
Part N	0				Rework Scrap Use-as-is	]   <sub>Th</sub>	M	Skid-tube	Crosstube Small Fab Finishing	Ņ		Water Jet d. Eng. Coor. e/Packaging	Engineering Quality Other		
NCR N	0				Work Order Update	ַן נ		arge Fab	Composite	-		Supplier		,	
Root				Descri	ption of work order update	Initia	al	Acti	on		Sign &			T	
Cause	Date	Step	Qty		or Non-conformance	Chief E	ng	Descri	ption		Date	Verification	QC Inspector		
Doc/Data	_														
Equip/Tooling															
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Landin	g Gear				General		400					r			
- 1	Bending				Bend	Gra				-	Ovalized	}	Pressure/Forced		
		ot Conce	ntric to O/	'S	BOM/Route		dware			$\vdash$	Over/Under	+	Temperature/Cure		
	Cracks			-	Broken/Damaged			n Incomplete		$\mathbf{H}$	Part Incorred		Weld		
	Crushed/	Crimped			Burrs			ons Incomplete/U	nclear	$\vdash$	Part Lost/Mi	ssing	Wrong Stock Pulled		
	Cuffs				Contamination			nance		$\vdash$	Part Moved				
	Heat Trea				Countersink		labele	ed		$\vdash$	Positioned V				
	Inspectio		Tube	<u></u>	Cut Too Short		read				Power Loss/	Surge	Other		
	Ripples in			_	Drill Holes	Offs				-					
			Extrusion		Drawing			alibration		_				_	
	Turning S				Finish			equence						_	
	Wave/Tw	ist in Tul	be		Folio	Out	side [	Dimensions							



NCR:	Vac	1	No
IVC.R.	Yes	- 1	ING

DQA:	Date:	

	103 / 110				WOME ON DELIVED IN		inviruez y o		QA Closed:	Date	2:			
Work Orde	er:				DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part N	No				Rework Scrap Use-as-is	The	Skid-tube Machining ermoforming	Crosstube Small Fab Finishing	_	Water Jet od. Eng. Coor. re/Packaging	Engineering Quality Other			
NCR N	No				Work Order Update	]	Large Fab	Composite		Supplier				
Root				Descri	ption of work order update	Initia	Δ	ction	Sign &			•		
Cause	Date	Step	Qty		or Non-conformance	Chief E	ng Des	cription	Date	Verification	QC Inspector			
Doc/Data			1 1											
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Landi	ng Gear				General			_	7		7			
	Bending				Bend	Grai		-	Ovalized		Pressure/Forced			
	$\vdash$	ot Conce	ntric to (	D/S	BOM/Route		ware .	-	Over/Under	_	Temperature/Cure			
	Cracks	versi iv		_	Broken/Damaged		ection Incomplete		Part Incorre	_	Weld			
		/Crimped			Burrs		uctions Incomplete	-/Unclear	Part Lost/M	_	Wrong Stock Pulled			
	Cuffs				Contamination		ntenance	-	Part Moved					
	Heat Tre		20.0	_	Countersink	$\vdash$	abeled	<del> </del>	Positioned V		7			
		n Strip in	Tube	_	Cut Too Short	Misr			Power Loss/	Surge	Other			
	Ripples i				Drill Holes	Offse								
		Vaves in I		1	Drawing		of Calibration					-		
		Sequence		-	Finish		of Sequence							
	I IWave/Tu	vist in Tul	90	1	Folio	I Outs	ide Dimensions							

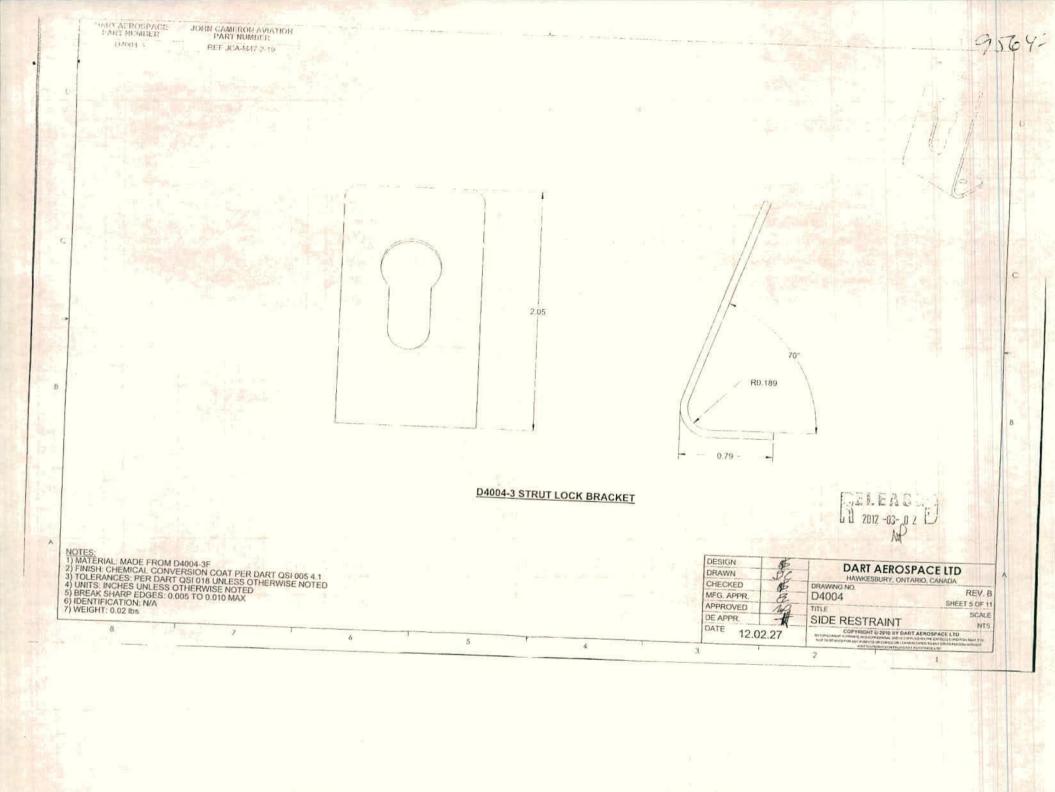


NCR:	Yes /	No

DQA:	Date:	

NCR: Y	es / No				WORK ORDER NON-	COI	VFORI	MAINCE / UP	DATE		QA Closed:	Da	ate:		
Work Orde	or:				DISPOSITION				AGAINST DEPARTMENT/PROCESS						
Part N					Rework Scrap Use-as-is	crap Machining Small Fa				Fab Prod. Eng. Coor.			Engineering Quality Other		
NCR N	lo				Work Order Update		March Committee	Large Fab	Finishing Composite	_	Rec/Stor	Rec/Store/Packaging Supplier		Other	
Root				Descri	ption of work order update	I	nitial	Ac	tion		Sign &				_
Cause	Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Desc	ription		Date	Verification	n	QC Inspector	
Doc/Data															Ī
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Operator															
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Process															
Supplier															
Training			1 1												
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						AUL	T CATE	GORY							_
Landir	ng Gear				General		15				1				
]	Bending				Bend	$\vdash$	Grain				Ovalized		$\vdash$	Pressure/Forced	
	Centre N	ot Conce	ntric to 0	D/S	BOM/Route	$\vdash$	Hardwa				Over/Under		-	Temperature/Cure	
	Cracks			_	Broken/Damaged	$\vdash$		on Incomplete			Part Incorre		$\vdash$	Weld	
	Crushed/	Crimped		_	Burrs	-		ions Incomplete/	Unclear		Part Lost/Mi	ssing	$\square$	Wrong Stock Pulled	
	Cuffs			_	Contamination	$\vdash$	Mainte			_	Part Moved				
	Heat Trea			_	Countersink	$\vdash$	Mislabe				Positioned V			T Caracter	
	Inspectio		Tube		Cut Too Short	-	Misread				Power Loss/	Surge	Ш	Other	_
	Ripples in				Drill Holes	$\vdash$	Offset								_
	Torque V			1	Drawing	-		alibration							_
	Turning S	000110000000000000000000000000000000000		_	Finish	$\vdash$		equence							_
	Wave/Tu	rist in Tub	10		Folio		Outside	Dimensions							

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											DQA:	Date:			
NCR:	Yes /	No				WORK ORDER NON	I-COI	NFORM	MANCE / UP	PDATE	0.4.61				
				-							QA Closed:	Date:			
Nork Ord	er.					DISPOSITION			AGAINST DEPARTMENT/PROCESS						
VOIK OIG	C1.					Rework		Skid-tube	Crosstube	1	Water Jet	Engineering			
Part I	No.					Scrap		Machining	Small Fab	Pro	d. Eng. Coor.	Quality			
						Use-as-is		Therm	oforming	Finishing	Rec/Stor	re/Packaging	Other		
NCR I	No					Work Order Update		,	Large Fab	Composite		Supplier			
Root					Descr	ription of work order update	9 1	Initial	Ac	ction	Sign &				
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Desc	cription	Date	Verification	QC Inspector		
oc/Data	Ш														
quip/Tooling	Ш														
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rocess															
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napproved															
							FAUL	T CATE	GORY		117				
Landi	ing Gea	ar			_	General	_			_	-	_	,		
	Be	ending				Bend		Grain			Ovalized		Pressure/Forced		
	Ce	entre No	t Conce	ntric to 0	D/S	BOM/Route		Hardwar	e	-	Over/Under	_	Temperature/Cure		
	Cr	acks				Broken/Damaged		Inspection	on Incomplete		Part Incorred		Weld		
	Cr	rushed/0	Crimped			Burrs		Instructi	ons Incomplete	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled		
	Cu	uffs				Contamination		Mainte	nance		Part Moved				
	He	eat Trea	t			Countersink		Mislabel	ed		Positioned V	Vrong			
	In	spection	Strip in	Tube		Cut Too Short		Misread			Power Loss/Surge Other				
	Ri	pples in	Bend			Drill Holes		Offset		_					
	To	orque W	aves in F	extrusion	, [	Drawing		Out of C	alibration						

Out of Sequence

Outside Dimensions

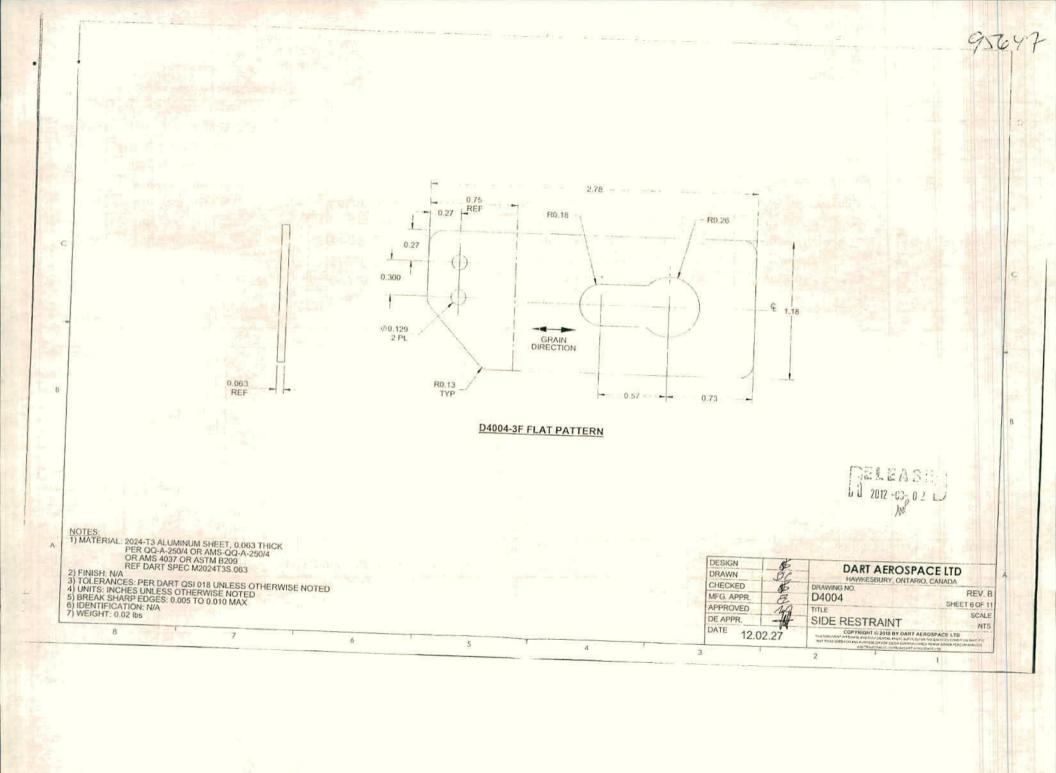
H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish

Folio



									DQA:	Date:		
NCR: Yes / No					WORK ORDER NON-CONFORMANCE / UPDATE				QA Closed:	Date:		
Work Orde	r.				DISPOSITION	N AGAINST			DEPARTMENT/PROCESS			
Part N	0				Rework Scrap Use-as-is Work Order Update		Skid-tube  Machining  moforming  Large Fab	Crosstube Small Fab Finishing Composite	-	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other	
Root				Descri	ption of work order update	Initial	1000	ction	Sign &			
Cause	Date	Step	Qty	- 8	or Non-conformance	Chief Eng	Eng Description		Date	Verification	QC Inspector	
oc/Data quip/Tooling Operator Material Setup Other Process Supplier Training												
					F	AULT CATE	GORY				10	
Landir	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend				General  Bend  BOM/Route  Broken/Damaged  Burrs  Contamination  Countersink  Cut Too Short  Drill Holes	Instruc Mainto Mislab Misrea Offset	tion Incomplete tions Incomplete, enance eled d	/Unclear	Ovalized Over/Under Part Incorre Part Lost/Mi Part Moved Positioned V Power Loss/	ct sissing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	
	Torque Waves in Extrusion				Drawing	I Out of	Out of Calibration					

Out of Sequence

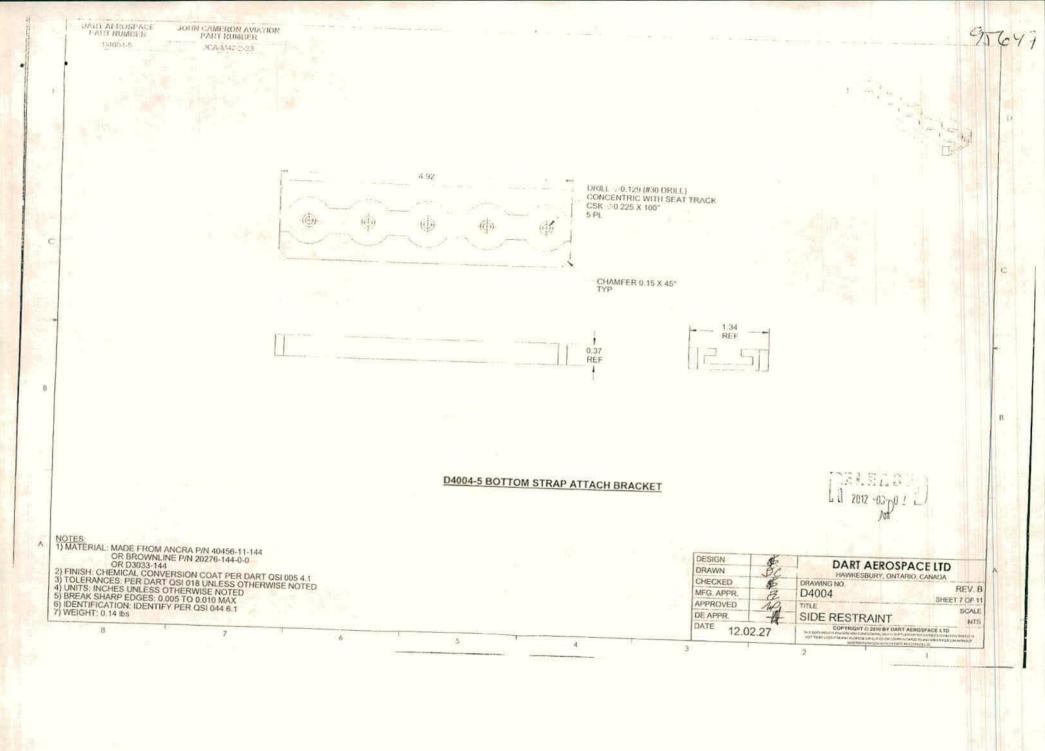
Outside Dimensions

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Turning Sequence

Wave/Twist in Tube

Finish Folio



DART AEROSPACE PART NUMBER JOHN CAMERON AVATION PART NUMBER D4004.2 REF JCA LUTZIN SPECIFICATION CONTROL DRAWING PART NUMBER POSSIBLE SUPPLIER SUPPLIER PART NUMBER FITS TUBE MATERIAL WIDTH "W" D4004-7 MCMASTER-CARR 1722A42 NICKEL PLATED STEEL 0.31 - 0.75 0.38 L ii 2012 -33- 0 1 : D4004-X HOSE CLIP NOTES:
1) MATERIAL: SEE TABLE
2) FINISH: NIA
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
7) WEIGHT: 0.01 lbs DESIGN DART AEROSPACE LTD DRAWN HAWKESBURY, ONTARIO, CANADA CHECKED DRAWING NO. REV. B MFG. APPR. D4004 SHEET 8 OF 11 APPROVED TITLE SCALE DE APPR SIDE RESTRAINT DATE COPYREINT O 2010 BY DART AEROSPAGE LTD 12.02.27

